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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,084	08/16/2000	Boo Soo kim	041501-5386	3068

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EXAMINER

SCHEIBEL, ROBERT C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,084

Applicant(s)

KIM, BOO SOO

Examiner

Robert C. Scheibel

Art Unit

2666

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10, 14, 16 and 19 is/are rejected.
- 7) ☒ Claim(s) 12, 13, 17, 18, 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see "Objection To Specification" section on page 9, filed 4/12/2004, with respect to objections to the specification have been fully considered and are persuasive. The objections to the specification have been withdrawn.
2. Applicant's arguments, see "Objection To Drawings" section, filed 4/12/20, with respect to the objection to the drawings have been fully considered and are persuasive. The objection to Figure 5 has been withdrawn.
3. Applicant's arguments, see line 5 of page 10 through line 9 of page 11, filed 4/12/2004, with respect to the rejection of claim 1 under 35 U.S.C. 103(a) have been fully considered and are persuasive. The rejection of claim 1 as well as of dependent claims 2-3 and 5-8 has been withdrawn.
4. Applicant's arguments, see line 10 of page 11 through line 16 of page 1, filed 4/12/2004, with respect to the rejection of claims 10 and 16 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

Applicant submits that Somer teaches an Ethernet connection device. Applicant further submits that in Somer, a repeater is used for transmitting data from one port to another port and that data must pass through a repeater core of the repeater. Examiner generally agrees with this characterization of Somer. However, the claim language is broad enough to read on Somer; there is nothing in the body of the claim language that distinguishes the present invention from the loopback test in a repeater of Somer.

Applicant further submits that Somer teaches that if more than one data packet is detected by the repeater core logic, the repeater disregards all but one of the data packets. Applicant further submits that according to applicant's invention, it is possible to test each node while the network is in operation, while Somer teaches that it is impossible for other nodes to operate in an on-line state while the test nodes are in operation. Examiner did not find this teaching in Somer. Further, the claim language of claims 10 and 16 do not contain any indication of this feature. Therefore, the rejection from the previous office action with regard to claims 10 and 16 is maintained herein.

5. Applicant was silent with respect to the rejection of claim 19 under 35 U.S.C. 112, second paragraph. As such, the rejection from the previous office action is maintained.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim **19** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim **19** recites the limitation "wherein the step of writing the test data packet to the U-turn node by the receiving bus master includes the steps of" in lines 5-6 on page 28. There is insufficient antecedent basis for this limitation in the claim. It is not clear

Art Unit: 2666

which of the 2 steps of writing the test data packet to the U-turn node (2nd or 4th) of claim 16 is being referenced.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **10 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art admitted by the applicant in view of U.S. Patent 6,052,362 to Somer.

Regarding claim **10**, the limitation of writing the test data packet of the test node (a transmitting node) by the receiving bus master is admitted as prior art by applicant in the lines from line 20 of page 3 through line 2 of page 4. The limitation of routing the test data packet to the receiving driver of the test node (a transmitting node) is admitted by applicant as prior art in lines 16-20 of page 3.

Regarding claim **16**, the limitation of writing the test packet to the U-turn node by the receiving bus master is admitted as prior art by applicant in lines 14-16 of page 6 "At this time, since the data packet cannot be directly written from the receiving packet routing bus 21 to the transmitting packet routing bus 20, the data packet is written to the u-turn node 15". The limitation of writing the test data packet of the U-turn node to the transmitting node by the transmitting bus master is admitted as prior art by applicant in lines 16-19 of page 6 "Then, the transmitting bus master 22 reads the data packet from

Art Unit: 2666

the U-turn node 15 and determines the destination address from the data packet. The data packet is then written to the transmitting node (one of the transmitting nodes 16-19) with the appropriate destination address". Similarly, the fourth step (of writing the test packet to the U-turn node) is admitted as prior art by applicant in lines 14-16 of page 6. The fifth step of routing the test data packet of the U-turn node by the transmitting bus master is admitted as prior art by applicant in lines 16-19 of page 6.

The prior art admitted by applicant does not expressly disclose the limitation of writing a test data packet for routing in a receiving node to a test node for testing by a test element and the limitation of looping the test data packet, both of claim 10. The prior art admitted by applicant also does not expressly disclose the limitation of writing a test packet to a test node by a testing element of claim 16.

Somer discloses the limitation of claim **10** of writing a test data packet for routing in a receiving node to a test node for testing by a test element in lines 12-16 of column 9. The limitation of claim **10** of looping the test data packet is taught by Somer in Figure 2 as described in the lines from line 66 of column 4 through line 4 of column 5 "For one embodiment, the physical transceiver 243 is operating in the loopback mode such that the test packets are transmitted from the transmitting channel of the physical transceiver 243 to the receiving channel of the physical transceiver 243. This type of loopback mode is referred to as a transceiver loopback mode".

The limitation of claim **16** of writing a test packet to a test node by a testing element is taught by Somer in lines 12-16 of column 9 "During testing, a test packet is transmitted to the test port 580b of the repeater core logic 510". The transmitting of the

Art Unit: 2666

test packet constitutes writing the test packet to the transmitting node (repeater core logic 510).

The prior art disclosed by applicant and Somer are analogous art because they are from the same field of endeavor of loop testing communication systems involving transmit and receive busses. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the prior art disclosed by the applicant by adding a test element for writing a test data packet for routing in either a receiving or transmitting node and by looping the test data packet at the receiving node. The motivation for doing so would be to test the communication system. This is suggested by Somer in 36-40 of column 1 "if there is a breakdown in a communication network system, it is desirable to test the communication hub in its normal working environment without removing the communication hub from the network". Therefore, it would have been obvious to combine Somer with the prior art disclosed by the applicant for the benefit of testing communication equipment to obtain the invention as specified in claims 10 and 16.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art admitted by the applicant in view of U.S. Patent 6,052,362 to Somer.

The limitations of claim 10 are unpatentable based on the prior art admitted by the applicant in view of Somer as described in detail above.

The prior art admitted by applicant also does not expressly disclose the limitation of claim 14 of the looping step being performed in response to a loop indicating signal.

The limitation of claim **14** of the looping step being performed in response to a loop indicating signal is taught by Somer in lines 62-63 of column 8. The loopback enable input 630a is the loop indicating signal.

The prior art disclosed by applicant and Somer are analogous art because they are from the same field of endeavor of loop testing communication systems involving transmit and receive busses. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the prior art disclosed by the applicant by adding a test element for writing a test data packet for routing in either a receiving or transmitting node and by looping the test data packet at the receiving node (and providing a loop indicating signal to control the looping). The motivation for doing so would be to test the communication system. This is suggested by Somer in 36-40 of column 1 "if there is a breakdown in a communication network system, it is desirable to test the communication hub in its normal working environment without removing the communication hub from the network". Therefore, it would have been obvious to combine Somer with the prior art disclosed by the applicant for the benefit of testing communication equipment to obtain the invention as specified in claim 14.

Allowable Subject Matter

6. Claims **1-9** are allowed.
7. Claims **12, 13, 17, 18, and 20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 703-305-9062. The examiner can normally be reached on 6:30-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RCS 6-25-04
Robert C. Scheibel
Examiner
Art Unit 2666

[Signature]
DANIELSON
PATENT EXAMINER